

# It comes and goes in waves

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## Valorization Addendum





The aim of this valorization addendum is to describe the societal relevance and impact of this thesis. Five aspects of valorization will be discussed: 1) the relevance of this thesis besides its scientific relevance, 2) the target groups outside the scientific field that are affected by the results of this thesis, 3) activities and products that result from the findings in this thesis, 4) the innovativeness of the findings in this thesis, and 5) the implications for the planning of the project.

## Relevance

Reduction of tobacco use is highly relevant for various stakeholders. Tobacco smoking is the most preventable cause of death with nearly 6 million deaths per year (Centers for Disease Control and Prevention, 2017, World Health Organization, 2011). These findings were also reason for the World Health Organization to adopt the FCTC with the aim to tackle the global tobacco epidemic (World Health Organization, 2003a). In addition, socioeconomic inequalities in tobacco use are becoming larger, including in the Netherlands (Bosdriesz, Willemsen, Stronks, & Kunst, 2015; Nagelhout, De Korte-de Boer, et al., 2012). These inequalities are responsible for a high burden of death and disease in Europe (Mackenbach, Stirbu et al., 2008). Moreover, as smoking and its consequences are related to high costs for individuals, societies and governments, a reduction of tobacco use could also be related to a decrease in health costs (European Commission, 2012). Tobacco control policies are thus an effective and cost-effective way to decrease the smoking prevalence, and have the potential to decrease socioeconomic inequalities (Fichtenberg & Glantz, 2002; Huang, Chaloupka, & Fong, 2014; Levy, Chaloupka, & Gitchell, 2004; World Health Organization, 2003b). However, it is important that these policies are implemented in such a way that this (cost-)effectiveness can be realized. In the Netherlands, several tobacco control policies have been reversed and reinstalled after implementation, and not much research has been conducted to evaluate this implementation deficiency. The findings of this thesis contribute to the field of research about the effectiveness of tobacco control policies and policies about the regulation of e-cigarettes, in particular of policies that were frequently changed after implementation.

## Target groups

### *Policy makers*

The results of this thesis can be used by policy makers who are responsible for health promotion in the Netherlands. They could use them as a source of information, for example about which policy is most promising to increase smoking cessation or which specific difficulties or problems can be expected during the implementation. The results can also be valuable to set priorities for different policies, to better implement measures or to improve the current policy situation. Specifically, the results from this

thesis can serve as scientific basis to strengthen and expand smoking restrictions in public places. Furthermore, it supports the need to reimburse smoking cessation treatment and to increase cigarette prices. Additionally, our results showed that low SES smokers remain a vulnerable target group that needs specific interventions such as educational campaigns or other forms of support.

### *Non-governmental tobacco control organizations*

In the Netherlands, several non-governmental and non-profit organizations are active in tobacco control such as the Dutch Alliance for a Smokefree Society, the Dutch Cancer Society, the Lung Foundation Netherlands, the Netherlands Heart Foundation, and the Trimbos Institute. These organizations prepare, for example, reports and fact sheets, develop interventions and campaigns, and give advice to policy makers. The results of this thesis can be used by these organizations in their work. For example, chapter 2 of this thesis showed that educational campaigns about the harm of secondhand smoking that are tailored to low SES smokers should be developed.

### *General population*

The general population is another group of interest for the findings of this thesis. First, smokers are stakeholders who could benefit from the findings in this thesis. There are many smokers who want to quit, but do not know how they can do this or who do not succeed in their quit attempts and keep relapsing (Borland, Partos et al., 2012). The findings in chapter 4 of this thesis showed that many smokers in the Netherlands do not use medication for their quit attempt, although research has shown that medication can be effective in supporting smokers to quit (Patnode et al., 2015; Stead, Koilpillai, Fanshawe, & Lancaster, 2016). Furthermore, the results showed that a media campaign that informs smokers about the possibility to get reimbursement for the medication had positive effects. If this measure would be strengthened, for example by excluding smoking cessation support from the mandatory deductible in the Netherlands and by a related informative campaign, smokers could benefit from this.

Non-smokers are affected by tobacco use as well, although to a lesser degree. The results from chapter 3 have shown that smoking in public places becomes socially less acceptable over time which might be reassuring for many non-smokers. It can be expected that this trend will continue in the next years, and that smoking will become even less acceptable, also among smokers. This means that exposure to harmful secondhand smoke will probably also decrease in the coming years. Moreover, non-smokers partially share the financial burden of increased morbidity and mortality that are caused by smoking and its consequences. Some results in this thesis have shown that several tobacco control policies have the potential to increase smoking cessation. If more smokers actually quit, this would subsequently also affect the costs of smoking that apply to the whole population.

## Activities and products

One important product of the ITC Netherlands Project is an ITC National Report (ITC Project, 2015). In this report, key findings concerning the Netherlands were presented in an international context by comparing the Netherlands with other countries participating in the ITC Project. A remarkable result from this report was that smokers from the Netherlands are not very concerned and do not often think about the harm of secondhand smoke when compared to smokers from other countries. The results from chapter 3 in this thesis showed that smoking in public is more accepted by low SES smokers. When these results are combined, the need for educational campaigns tailored to this topic and target group becomes even clearer. The release of this report was accompanied by a press release from Maastricht University that was subsequently picked up by several media.

The results of this thesis are the product of collaborations between several universities and non-governmental organizations. Researchers from Maastricht University, the University of Amsterdam and the Dutch Alliance for a Smokefree Society collaborated in this project. In addition, there was occasional collaboration with the Dutch Cancer Society and the Trimbos Institute, for example to include research findings in fact sheets.

The publication of the study that is presented in chapter 3 of this thesis was also accompanied by a press release from Maastricht University. In this press release, the results of our study showing that smoking in public places and at home became less accepted during the past years were presented. Previous research has shown that smoking restrictions in public places can have positive effects on smoking behavior, and our study added that there were additional positive effects on the societal acceptance of smoking. This press release was subsequently picked up by media and followed by interviews about the findings.

The results of this thesis were presented at several national and international conferences, including the conference of the Dutch Network of Tobacco Researchers (NNvT), the European Conference on Tobacco or Health (ECToH), and the Europe meeting of the Society for Research on Nicotine and Tobacco (SRNT).

Furthermore, several results from the ITC Netherlands Project were used to support the scientific basis for a long-term plan for tobacco control by the Dutch Cancer Society and by the Dutch Alliance for a Smokefree Society. In addition, results were used as scientific basis for a communication trajectory about the harm of (secondhand) smoking by the Ministry of Health, Welfare and Sport.

## Innovation

Research about the effects of tobacco control policies has a long tradition, but it remains important to continue to monitor and evaluate such policies. Particularly innovative in this thesis is the study about e-cigarettes that is presented in chapter 2. E-

cigarettes are relatively new on the market, and the ITC Netherlands Survey is one of the first projects that collected data about it immediately after the introduction to the market. This allows for longitudinal trend analyses about e-cigarettes as of 2008 while most other studies started much later with data collection.

Another innovative aspect of this thesis is the evaluation of policy developments over time, including reversals and reimplementations of policies. In other studies, often only one policy change is evaluated, such as the introduction of smoking restrictions in the hospitality sector. These studies can only capture short-term effects of that policy while it is possible that those effects change over time, in particular when the policy context changes, for example after changes of the government. Therefore, it is important to evaluate policy developments also over a longer period of time as was done in chapter 3 and 4 of this thesis. The focus of chapter 3 is on the repeatedly changed smoking restrictions in bars in the Netherlands, and in chapter 4 on the changes in the reimbursement of smoking cessation support. Specifically, we found that smoking became less accepted by the Dutch population during the past ten years (chapter 3), and that awareness of the opportunity to receive reimbursement for smoking cessation support increased when reimbursement was implemented, and decreased when reimbursement was reversed (chapter 4).

Validation studies in the context of tobacco control research are not often done, in particular not in large and representative samples. It is usually too costly to include several instruments that measure the same concept in a survey over several years while this is necessary for comparative validation studies as presented in chapter 7 of this thesis. In addition, including these instruments makes a survey longer which can be inconvenient for respondents who fill in the survey. Therefore, conducting two validation studies was a relatively exceptional opportunity that could result in more cost-effective decisions for future surveys.

## Planning

This project will continue in the future and already received funding for this continuation. This means that monitoring and evaluation of tobacco control policies in the Netherlands at the national and international level will continue for several more years. This follow-up research will also be done with the same cohort as used in this thesis. In addition, because six new European countries have joined the project in 2015, the findings from the Netherlands will be placed in an even larger European context. This also means that international collaborations will not only be continued, but also extended. The financial costs of this project are expected to remain comparable with previous years as the ITC Netherlands Project will continue to conduct observational research with one online survey per year. A risk of such longitudinal research is that respondents get less motivated over time to participate and drop out of the cohort. In addition, response bias may occur because the survey includes mainly the same questions each

year. However, this is taken into account in the ITC Project by recruiting new respondents and by adjustments of statistical analyses. It can be expected that the benefits outweigh these risks. Longitudinal analyses are the only method to investigate individual-level changes over time which is important to investigate long-term effects of tobacco control policies. Furthermore, as increasingly more countries participate in the ITC Project, more cross-country comparisons can be made, with the result that countries can better learn from each other how to implement the policies of the FCTC in the most efficient way.